

## ABSTRACT

An apparatus and method are described for treating acute myocardial infarction with therapeutic hypothermia. The apparatus takes the form of a therapeutic hypothermia system including a heat exchange catheter with an intracardiac heat exchanger and an external heat exchanger connected together in a heat exchanger circuit. The heat exchange catheter has an elongated catheter shaft configured for transluminal introduction into a heart chamber via a vascular insertion site. The apparatus and method provide rapid cooling of the affected myocardium to achieve optimal myocardial salvage in a patient experiencing acute myocardial infarction.